STATE OF MARYLAND

DHMH

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October 09, 2009

Public Health & Emergency Preparedness Bulletin: # 2009:39
Reporting for the week ending 10/03/09 (MMWR Week #39)

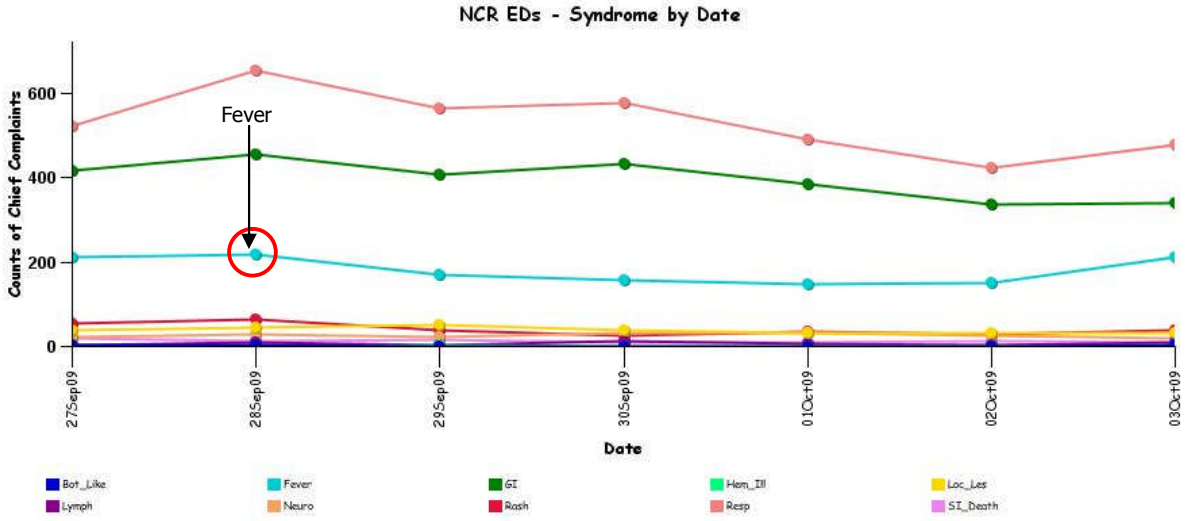
CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

SYNDROMIC SURVEILLANCE REPORTS

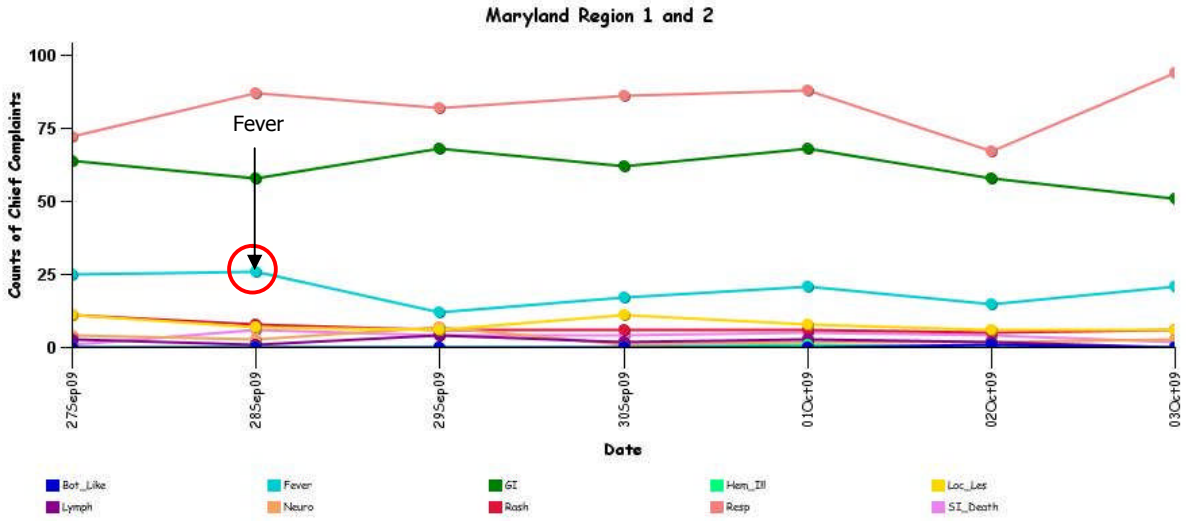
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled.
Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

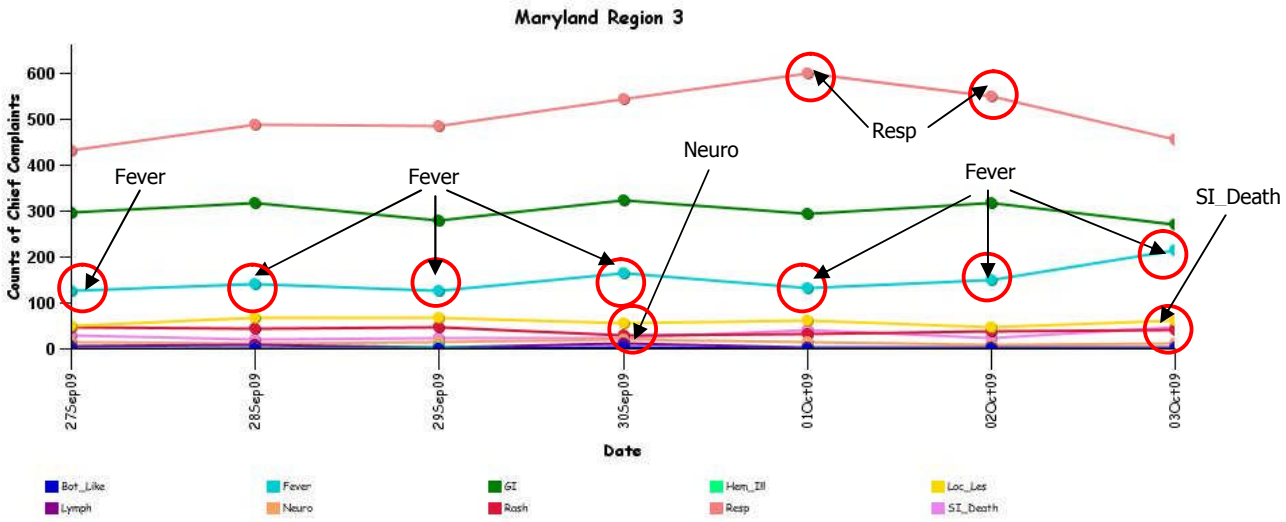


* Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

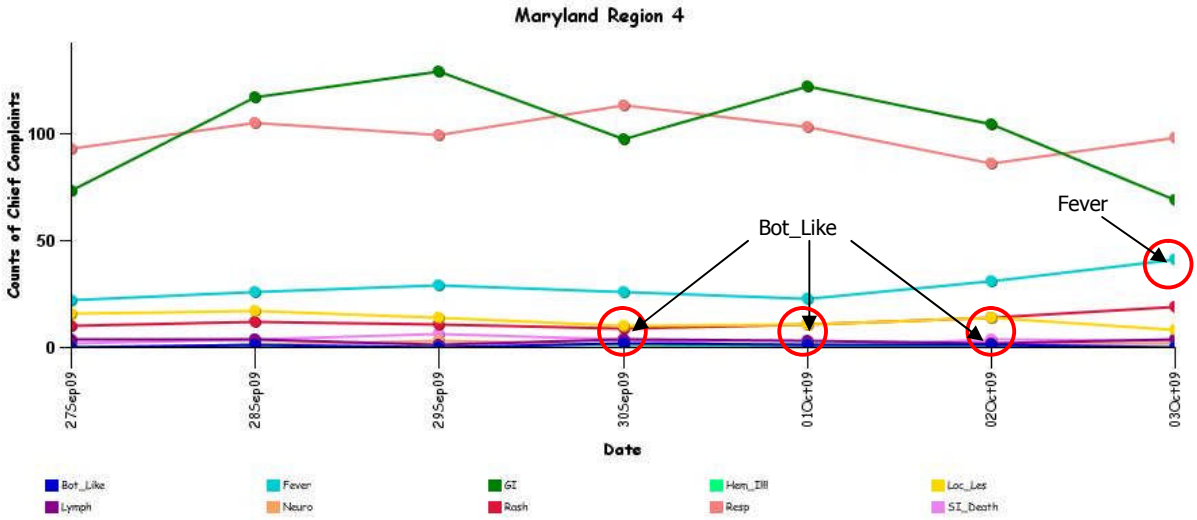
MARYLAND ESSENCE:



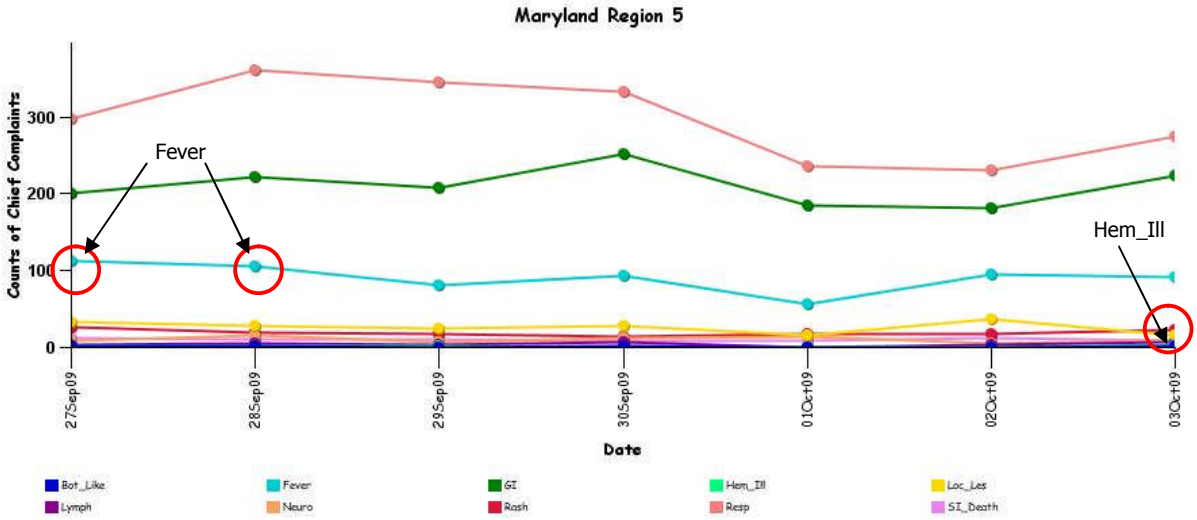
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore city, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE

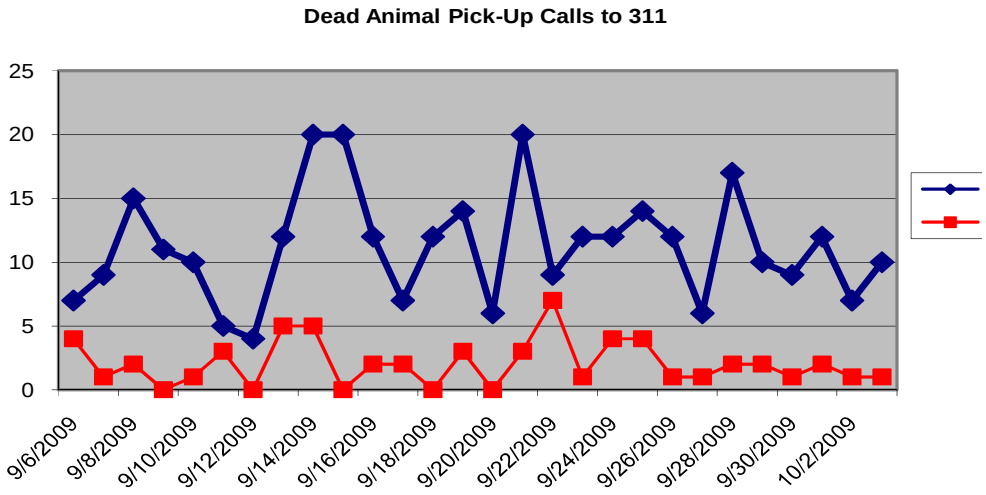


* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



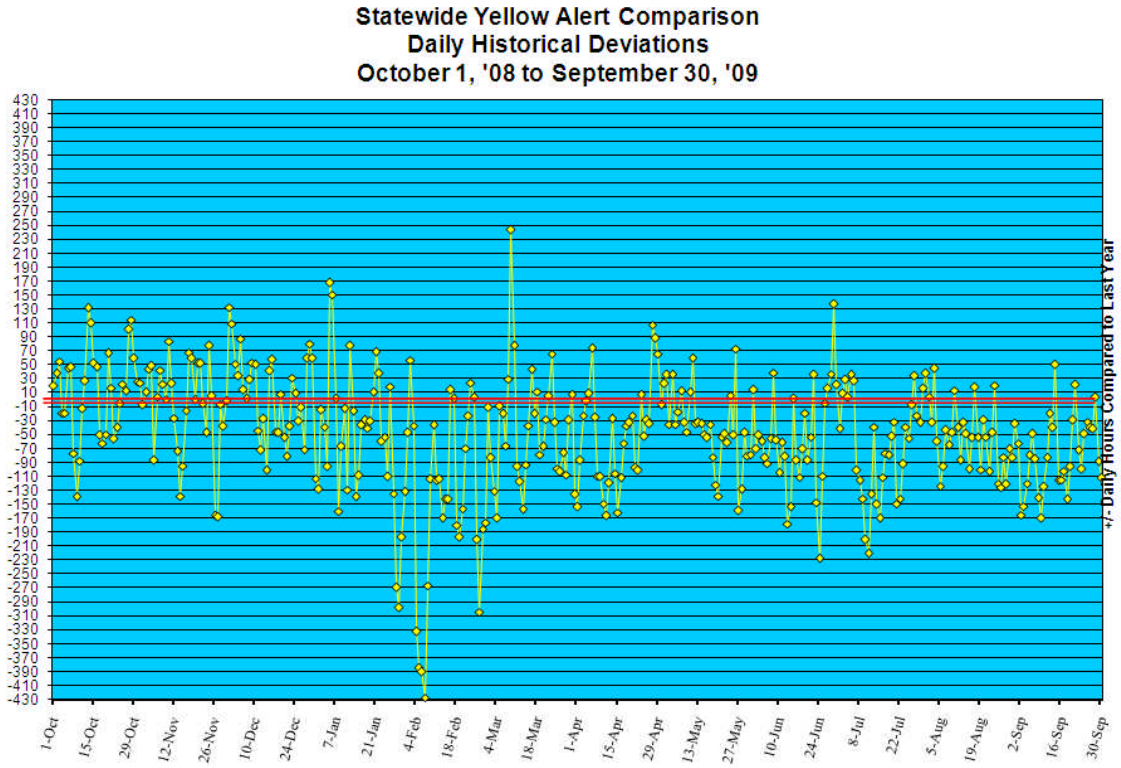
* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/08.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to BT for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in August 2009 did not identify any cases of possible terrorism events.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (Sep 27- Oct 03, 2009):	20	0
Prior week (Sep 20- Sep 26, 2009):	21	0
Week#39, 2008 (Sep 21- Sep 27, 2008):	19	0

OUTBREAKS: 22 outbreaks were reported to DHMH during MMWR Week 39 (September 27- October 3, 2009)

21 Respiratory illness outbreaks
1 outbreak of PNEUMONIA associated with a Nursing Home
1 outbreak of ILI associated with a Nursing Home
15 outbreaks of ILI associated with Schools
1 outbreak of ILI associated with a Daycare
3 outbreaks of INFLUENZA associated with schools

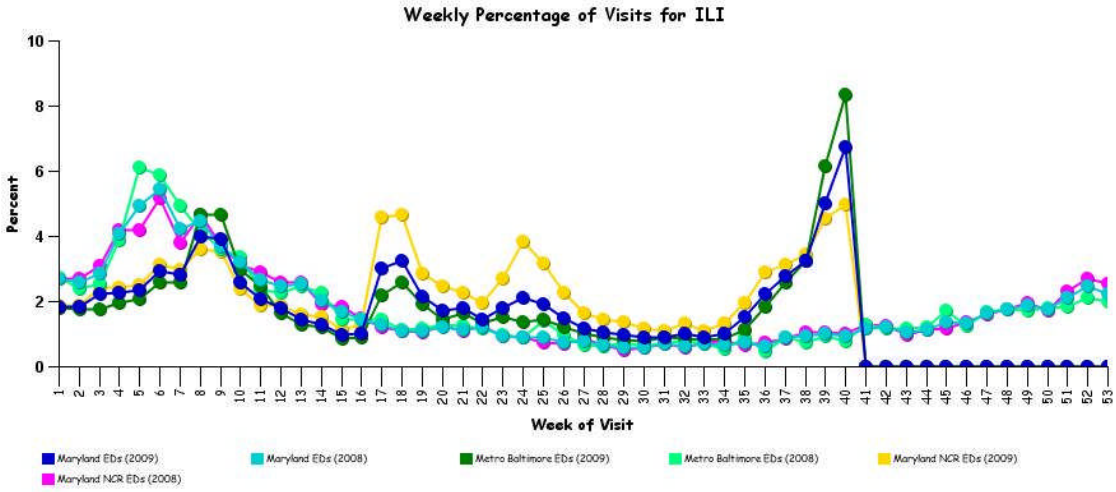
1 Foodborne illness outbreak
1 outbreak of FOODBORNE GASTROENTERITIS associated with a Catered Event

MARYLAND INFLUENZA STATUS: Influenza activity in Maryland for Week 39 is WIDESPREAD.

SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.

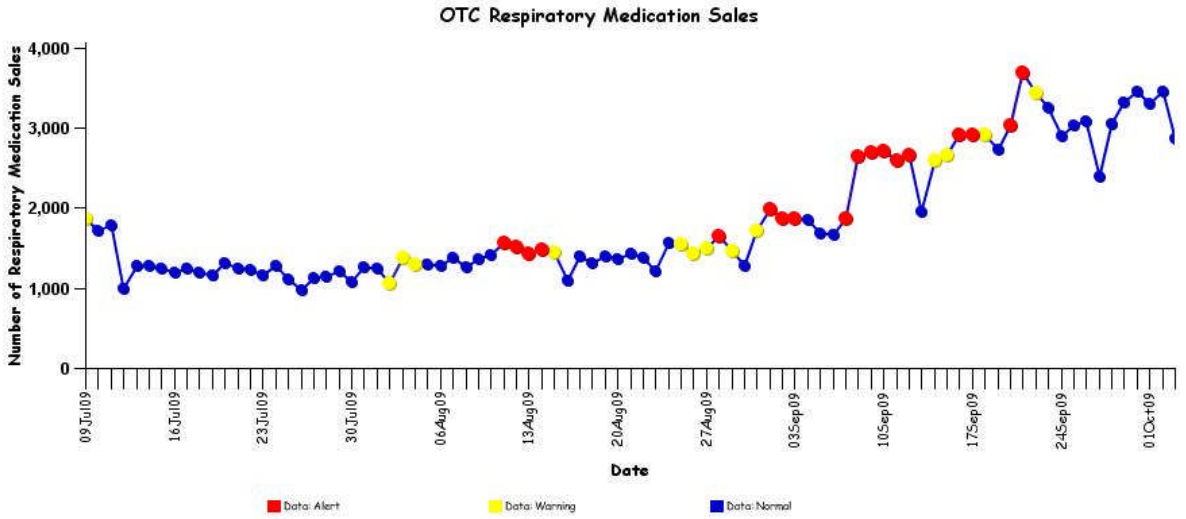


* Includes 2008 and 2009 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total

*Includes 2009 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5
2009 data for these regions are depicted separately to establish baselines, due to the addition of new hospitals in these regions.

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE:

WHO Pandemic Influenza Phase: Phase 6: Characterized by community level outbreaks in at least one other country in a different WHO region in addition to the criteria defined in Phase 5. Designation of this phase will indicate that a global pandemic is under way. Definition of Phase 5 is characterized by human-to-human spread of the virus into at least two countries in one WHO region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

US Pandemic Influenza Stage: Stage 0: New domestic animal outbreak in at-risk country

**More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at: http://preparedness.dhmh.maryland.gov/Docs/PandemicInfluenza/PandemicInfluenzaResponseAnnex(Version7.2).pdf

AVIAN INFLUENZA-RELATED REPORTS:

WHO update: As of September 24, 2009, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 442, of which 262 have been fatal. Thus, the case fatality rate for human H5N1 is about 60%.

H1N1 INFLUENZA (Swine Flu):

INFLUENZA PANDEMIC (H1N1), USA MILITARY VACCINE: 02 Oct 2009, US military troops will begin getting required swine flu shots in the next week to 10 days, with active duty forces deploying to war zones and other critical areas going to the front of the vaccine line, a top military commander said on 29 Sep 2009. Air Force general Gene Renuart also told the Associated Press that as many as 400 troops are ready to go to 5 regional headquarters around the country to assist federal health and emergency management officials if needed as the flu season heats up. The Pentagon has bought 2.7 million vaccines, and 1.4 million of those will go to active duty military. National Guard troops on active duty are also required to receive the vaccine, as are civilian Defense Department employees who are in critical jobs. Shots will be doled out on a priority basis, with troops preparing to deploy first, followed by other active duty forces, particularly any who might be needed to quickly respond to a hurricane or other emergency. Families of military members will receive their shots through the military bases, who will be working with state officials and get their own shipments of the vaccine. Renuart said it appears there is enough of the vaccine to meet the military's needs. Inoculating the military is a key requirement of the Pentagon's emergency plan, as a way to ensure that troops are available to protect the nation. They also will be on tap to provide help to states if problems come up as the flu season continues. So far, Renuart said that between 15 and 20 troops have been dispatched to each of the 5 regional headquarters, to work with officials from the Centers for Disease Control and Prevention, the Department of Health and Human Services, the Federal Emergency Management Agency, and state leaders. But the military presence could rise to 80 in each regional office if needed, he said.

INFLUENZA PANDEMIC (H1N1), BACTERIAL COINFECTION: 30 Sep 2009, In previous influenza pandemics, studies of autopsy specimens have shown that most deaths attributed to influenza A virus infection occurred concurrently with bacterial pneumonia, but such evidence has been lacking for the pandemic influenza A (H1N1) 2009 virus. To help determine the role of bacterial coinfection in the current influenza pandemic, CDC examined postmortem lung specimens from patients with fatal cases of pandemic influenza A (H1N1) 2009 virus infection for bacterial causes of pneumonia. During 1 May to 20 Aug 2009, medical examiners and local and state health departments submitted specimens to CDC from 77 US patients with fatal cases of confirmed 2009 pandemic influenza A (H1N1) virus infection. Evidence of concurrent bacterial infection was found in specimens from 22 (29%) of the 77 patients, including 10 caused by Streptococcus pneumonia (pneumococcus). findings confirm that bacterial lung infections are occurring among patients with fatal cases of 2009 pandemic influenza A (H1N1) and underscore both the importance of pneumococcal vaccination for persons at increased risk for pneumococcal pneumonia and the need for early recognition of bacterial pneumonia in persons with influenza.

INFLUENZA PANDEMIC (H1N1), VACCINATION IN CANADA: 29 Sep 2009, British Columbia (BC) might suspend seasonal flu shots as early as 28 Sep 2009 for people who aren't seniors, in the wake of a Canadian study that suggests people who get the normal flu vaccine are twice as likely to contract H1N1 infection. Several news outlets have reported the preliminary findings of the study, which is still under peer review. Researchers found that those who received the seasonal flu vaccine in the past were more likely to catch H1N1 infection. While the research was initially met with much skepticism from health officials, several provinces, including Quebec, Alberta, Saskatchewan, Ontario, and Nova Scotia, have suspended seasonal flu shots for anyone younger than 65. Quebec announced its decision on 27 Sep 2009, postponing regular flu shots until January 2010 to devote the fall vaccination season to the wave of expected H1N1 infections. New Brunswick, on the other hand, announced last week that it will stick to its plans to offer seasonal flu shots in October. The BC Ministry of Healthy Living and Sport is holding a news conference on 28 Sep 2009 to make what is billed as "an announcement around BC's seasonal flu vaccine campaign." Jeff Rudd, ministry spokesman, would not confirm whether Minister Ida Chong will announce a suspension of the vaccine. Last week, provincial health officer Dr Perry Kendall told CBC News that the uncertainty around how the flu shot interacts with the pandemic flu shot makes "decision-making a lot more complex." The lead researchers behind the controversial study were Danuta Skowronski of the BC Centre for Disease Control and Gaston De Serres of Universite Laval in Ste Foy, Quebec, according to news reports.

Resources:

http://www.cdc.gov/h1n1flu/

http://www.dhmh.maryland.gov/swineflu/

NATIONAL DISEASE REPORTS

EASTERN EQUINE ENCEPHALITIS, HUMAN (New York): 02 Oct 2009, An Oswego County resident died of eastern equine encephalitis (EEE) on 15 Sep 2009, the Oswego County Health Department has announced. The Oswego and Onondaga County Health Departments jointly announced 18 Sep 2009 that the resident had been diagnosed with EEE. Oswego County public health director, Dr Dennis Norfleet, said the sex of the victim could not be released. "EEE is a rare but serious viral disease that is spread by the bite of infected mosquitoes," Norfleet said. "Its fatality rate is high; between 30-70 %." There have only been 2 other fatal cases of EEE recorded in New York State - one in 1971 and one in 1983. In addition, there have been 221 confirmed human cases of EEE in the United States from 1964 - 2004, according to the New York State Department of Health website. (Viral encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

EASTERN EQUINE ENCEPHALITIS, PHEASANT (Maine): 30 Sep 2009, After about 125 pheasants at a town farm died from eastern equine encephalitis [EEE] in recent weeks, the rest of the flock was euthanized on 28 Sep 2009. The move came on the same day the disease was confirmed in a 2nd pheasant flock in York County. About 80 pheasants at a farm in Parsonsfield recently died from EEE, according to Scott Lindsay, a biologist for the Maine Department of Inland Fisheries and Wildlife. The remaining 120 birds in the flock will be euthanized Sep 29, he said. About 125 pheasants at the South Berwick farm were euthanized on Sep 28. In both towns, the birds likely contracted the disease from an infected mosquito and spread it in a cannibalistic manner - a common behavior in those birds, said Don Hoenig, state veterinarian for the agriculture department. Hoenig said there have been an unusually large number of incidences of EEE in animals this year. The disease has already killed 14 horses in 5 counties. Hoenig said in his 23 years in the agriculture department, he has never seen the disease in pheasants. The spread of the disease could be attributed to a combination of factors, including a wet summer producing a bumper crop of mosquitoes, the appearance of new migratory birds, and a lack of horses being vaccinated, Hoenig said. As fall temperatures set in and frost occurs, incidences of the disease should drop. (Viral encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

EASTERN EQUINE ENCEPHALITIS, EQUINE (Rhode Island): 30 Sep 2009, The Department of Environmental Management (DEM) received confirmation last week from the Rhode Island Department of Health laboratory that a horse from Tiverton has tested positive for EEE. As a result of the positive finding, DEM will set additional mosquito traps in Tiverton and Little Compton. DEM's Division of Agriculture was notified on 21 Sep 2009 that the horse had been displaying neurological symptoms of EEE for about 18 hours. DEM's state veterinarian, Scott Marshall, DVM, euthanized the comatose animal and submitted samples to the laboratory for analysis. The specimen tested negative for rabies. The 2 year old horse had not been properly vaccinated against EEE. (Viral encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

EASTERN EQUINE ENCEPHALITIS, EMU (New Hampshire): 29 Sep 2009, An emu, which died late this week from eastern equine encephalitis (EEE) in Alstead shows that for the 1st time the disease has spread to the south west corner of New Hampshire. Until now most of the 59 communities that have reported positive tests for EEE were located in the central or south east portions of the state, but the fact that it has shown up in the Alstead area has shown state health officials that the disease is likely being spread by birds (mosquitoes have a range of just 3 miles). Mosquito traps will now be set up in Alstead beginning next week. So far this season, a llama and an alpaca in Candia have died from EEE, as well as 2 horses, 1 in Henniker and 1 in Bow. A 3 year old girl from Candia, who was diagnosed with EEE 3 weeks ago, is recovering at home after a battle with the disease. (Viral encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

SALMONELLOSIS, SEROTYPE TYPHIMURIUM, POSSIBLE LETTUCE SOURCE (USA): 27 Sep 2009, Shredded lettuce is taking the blame for sickening 124 people across the USA, primarily in Western states, and 12 people in Canada, with salmonella during the summer 2009. Bill Keene, senior epidemiologist for Oregon Public Health Division, said shredded lettuce, possibly from quick-service restaurant locations, is the likely cause of a Salmonella Typhimurium outbreak that started mid-July 2009, peaked in August 2009, and tapered off later that month. Keene has been involved in the epidemiological trace back for weeks and recently saw the investigation mostly handed over to the FDA and state departments of agriculture, as shredded lettuce seems to be a fairly common denominator for affected people. "FDA launched its involvement around the 1st of September 2009," said Sebastian Cianci, spokesman for the FDA. "So far we have not been able to identify a vehicle of transmission, so we don't know a vehicle yet, but we do believe it's food related." There were no lettuce recalls associated with this outbreak, which makes the investigation difficult. Any contaminated product would have been consumed by now, so trace back cannot be confirmed by testing. Consumer reports of food consumption are being used as primary evidence, along with invoices and shipping and receiving records from restaurants, distributors and shippers. Cianci said the outlet for the unconfirmed source of contamination seems to be fast food restaurants, although not necessarily chain restaurants. "People reported eating at one or more fast food restaurants, often multiple restaurants," Cianci said. "But it doesn't seem to be one restaurant chain or one type of food served. And it does not seem to be associated with food sold at grocery stores. Cases were reported across the USA and in Canada, although most were in the Western part of the continent. Keene could not confirm whether any one state or any one shipper is suspected, but he did say at least one obvious lettuce growing state is involved. The outbreak did not cause any fatalities, although 2 people were hospitalized, according to media reports. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

CHIKUNGUNYA, SUSPECTED (India): 03 Oct 2009, Hundreds of people in 4 villages in the Delang block of Puri district have been afflicted by an unidentified fever during the last few weeks. According to Bishnu Prasad Mahapatra, a victim of the disease, the affected persons experience high fever for a couple of days followed by pain and swelling in their knees and other joints. Though the fever recedes after taking medicines, the pain and the swelling continues to persist. Within a week the disease spread through Praharajpur, Sripratap Pur and Pidhapatana villages, Mr Mahapatra said. The visiting doctors were administering conventional medicines to the patients, advising to wait till the report comes from labs. Puri chief district medical officer Dr D N Sarangi said a team of medicos had been sent to the area and blood samples were collected from the affected patients for diagnosis. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

CHIKUNGUNYA (Malaysia): 02 Oct 2009, Chikungunya, a viral disease, is on the rise in the state. Deputy chief minister Tan Sri Dr George Chan said Oct 1 that until last year, there had not been any reports. However, there were 397 cases so far this year. The latest reported cases occurred in Sibu last week. 20 people, ages 7-73, and living on the banks of the Rajang River, opposite Sibu town, and in Selangau, were hospitalized in Sibu hospitals. All except 3 were discharged by Sep 28. There have also been cases reported in Betong and in Kuching. In his briefing on the latest situation on the haze, the dry spell, and influenza H1N1 in the state, he said people who contracted the chikungunya virus in infected areas brought the disease into the state. State Health Department deputy director Dr Faizul Mansor said they were investigating the source of the spread of the disease in Sibu. Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

EASTERN EQUINE ENCEPHALITIS, EQUINE (Canada): 01 Oct 2009, Nova Scotia appears to have its 1st case of a mosquito borne virus that is almost always fatal to horses and in rare cases can kill people. A case of eastern equine encephalitis (EEE) virus has been confirmed in a horse in south west Nova Scotia, an official with the provincial Department of Agriculture said on Sep 28. Rob Kerr, a department veterinarian, said the horse was put down. Veterinarian Brian Manuel said his clinic is expecting 120 doses of a vaccine to be delivered on Sep 29. Kerr said as far as he knows, this is the 1st case of eastern equine encephalitis in the province. Results on another possible case are pending, and he has heard of other horses in the area showing signs of the virus. Kerr has alerted his counterparts in New Brunswick and Prince Edward Island. "We want to get the word out to veterinarians so that if they see anything suspicious they can contact their veterinarian laboratories and we can determine whether this is a very limited area involved or whether it's more widespread than that," he said. (Viral encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

ENCEPHALITIS, UNIDENTIFIED (India): 01 Oct 2009, In Gorakhpur 6 more children succumbed to encephalitis taking the toll in the viral fever in the district this year to 356. The fresh deaths took place Sep 30 at the BRD Medical College Hospital. 41 new patients of suspected encephalitis have also been admitted to the hospital. Additional director health LP Rawat said 258 patients are being treated at BRD Medical College Hospital and 32 in other government hospitals in the region. Previous reports have attributed some of the cases to Japanese encephalitis virus (JEV) infection and others to an acute encephalitis syndrome of unidentified etiology not caused by JEV. (Viral encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

PLAGUE (Democratic Republic of Congo): 27 Sep 2009, The Ministry of Health of Uganda has launched a plague control program in Nebbi and Arua districts as a result of a renewed threat of the bubonic plague in the Democratic Republic of Congo. The bubonic plague has been reported in Congo's Orientale province, which borders the West Nile region. The plague control program is targeting Vurra and Logiri in Arua district and Kango, Zeu and Jangokoro sub counties in Nebbi district. Under the new plague control program, ministry of health together with the 2 district health directorates will engage in massive sensitization campaigns and spraying of homesteads in 5 sub counties to prevent a possible outbreak of the disease. In the West Nile area, the disease outbreaks have been commonly reported in Logiri and Kango subcounties. In 2008, a plague outbreak in the 2 sub counties killed 17 people and infected 90 others. (Plague is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

Q FEVER, MONITORING AND ANIMAL VACCINATION (Netherlands): 27 Sep 2009, Dutch farms, children's farms and zoos holding more than 50 goats or sheep will have to vaccinate the animals against a highly infectious disease known as Q fever, the Dutch Agriculture Ministry said Sep 26. Since 2007 human cases of the disease have risen sharply in the Netherlands to more than 2000 in 2009, according to the National Institute for Public Health. 5 people have so far died from Q-fever. The Ministry will make 1.5 million vaccinations available. In addition, starting Oct 1, holders of more than 50 dairy goats or sheep will be obliged to participate in the Q-fever monitoring. Each farm will be sampled once in 2 months for Q-fever testing. Suspected/positive samples will be forwarded for confirmatory testing to the Central Veterinary Institute (CVI). If confirmed, those farms will be declared infected. Infected dairy goats and sheep farms may regain their free status after a year of negative bi-monthly bulk tank milk test results. (Q Fever is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

SALMONELLOSIS, PRISON (United Kingdom): 27 Sep 2009, Salmonellosis was behind an outbreak at HMP (Her Majesty's Prison) Wandsworth that struck down more than 370 inmates and staff, Prison Service confirmed. Staff were sent home last on Sep 17 and visitations were cancelled while officials from the Department of Health were sent in to determine the cause of the diarrheal illness. The outbreak brought London's justice system to a standstill after all court appearances were suspended for inmates at the prison. The Prison Service revealed on Sep 22 that salmonella was detected in a number of samples taken from sick inmates. By then, just 20 inmates and staff were still suffering from illness. A Prison Service spokesperson said: "The prison is dealing with this incident together with local health officials in line with standard infection control procedures. We would like to reassure the public that there is minimal risk that this illness could spread from the prison to the community. As part of the investigation, a small number of samples were taken from to identify the cause of the illness. Of these, 14 have now been confirmed as Salmonella." (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

Surgical Mask vs N95 Respirator for Preventing Influenza among Health Care Workers ***JAMA.*** **2009; 302(17)**
This article describes a randomized controlled trial of 446 nurses in emergency departments, medical units, and pediatric units in 8 tertiary care Ontario hospitals to compare the surgical mask with the N95 respirator in protecting health care workers against influenza. The authors conclude that the incidence of laboratory-confirmed influenza was similar in nurses wearing the surgical mask and those wearing the N95 respirator. Some limitations to the study include: Compliance could not be assessed for all participants, the use of hand hygiene and use of gloves and gowns were not monitored, and the inability to determine whether participants acquired influenza due to hospital or community exposure. http://jama.ama-assn.org/cgi/content/full/2009.1466

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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